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**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claim 1. (Currently Amended) A method for introducing a substance comprising a nucleic acid into a mammalian neural stem cell or progenitor cell, in vitro, wherein the substance gives a detectable signal or encodes a peptide or protein that enables selective identification of the cells, the method comprising (i) bringing the substance into contact with the cell, wherein step (i) is the only prerequisite for the uptake of the substance by the cell wherein said nucleic acid directly interacts with the cell membrane of said cell or a component within said cell membrane in vitro whereby the substance comprising said nucleic acid is taken up by the cell via the inherent transport mechanism of the cell.

Claim 2. (Currently Amended) A method according to claim 1, wherein said cell is obtained derived from an adult.

Claim 3. (Canceled)

Claim 4. (Currently Amended) A method according to claim 1-3, wherein said substance comprises a single or double stranded, linear or circular DNA.

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**Claims 5-6. (Canceled)**

**Claim 7. (Currently Amended)** A method according to any claim 1, wherein said nucleic acid substance is an expression vector containing specific cDNA.

**Claims 8-11. (Canceled)**

**Claim 12. (Currently Amended)** A method according to claim 1-11, wherein said protein is a fluorescent protein.

**Claim 13. (Currently Amended)** A method according to claim 1-11, wherein said detectable signal is due to a radioactively tagged nucleic acid.

**Claim 14. (Previously Presented)** A method according to claim 1, wherein said cell is a cell in a tissue or cell culture.

**Claims 15-22. (Canceled)**

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**Claim 23.** (Currently Amended) The method according to claim 7 8, wherein said protein or detectable signal is used for ~~allows~~ for testing or screening of aforementioned protein or signal.

**Claims 24-45.** (Canceled)

**Claim 46.** (New) The method according to claim 1, wherein the substance is brought into contact with the cell without the use of facilitating drugs, carriers, soluble receptors, chemicals or any special devices that facilitate uptake or transport of DNA.

**Claim 47.** (New) The method according to claim 1, wherein the cell has not been modified to facilitate uptake of DNA.

**Claim 48.** (New) The method according to claim 1, wherein the peptide or protein is a marker peptide or protein.